Mathematics · Grade 6

Volume of a rectangular prism

Worked example

A 4 cm × 3 cm × 2 cm box holds 12 unit cubes per layer and has 2 layers. Its volume is 24 cm³.

Answers

1. One layer has 5 rows of 4 cubes. How many cubes are in the layer?

20

2. There are 3 layers of 14 cubes. How many altogether?

42

3. Find the volume of the 3 cm × 3 cm × 4 cm prism.

36 cm³

4. Find the volume of the 6 cm × 4 cm × 2 cm prism.

48 cm³

5. Find the volume of the 5 cm × 4 cm × 3 cm prism.

60 cm³

6. Find the volume of the 8 cm × 2 cm × 5 cm prism.

80 cm³

7. A box has a volume of 72 cm³. Its base is 6 cm × 4 cm. Find its height.

3 cm

8. Find the volume of each box. The first measures 4 cm × 4 cm × 2 cm. The second measures 8 cm × 2 cm × 2 cm. Do the boxes have the same volume?

Both are 32 cm³.